

Science Panel Coordination Meeting

ATTENDEES: Bill Moellmer
Anne Fairbrother
Bill Wuerthele
Theron Miller
Theresa Presser
Joe Skorupa

Martin Grosell
Ying-Ying Macauley
Gary Santolo
Jeff DenBleyker
Earl Byron

OTHER ATTENDEES: Nathan Darnall
Leland Myers

FROM: CH2M HILL

DATE: November 8, 2007

The following summary is based on the author's notes and recollections of the discussion, and may include details that have not yet been verified. This summary is subject to review and comment by the attendees listed above, and will be discussed and approved during the November 28, 2007 Science Panel. Please do not distribute to a wider audience until the summary is approved by the Science Panel.

Approve Meeting Summary from October 11, 2007 Panel Meeting

There were no comments regarding the meeting summary sent to the Panel for review. It is approved.

Future Meeting Summaries

It had been suggested that a more detailed record of discussion at future Science Panel conference calls and meetings be kept. Theresa Presser suggested that a dedicated note taker, with a science background, take notes that are projected on the wall for attendees to see during the meeting. The notes can then be handed out at the end of the day for review. It was agreed that DWQ would provide a dedicated note taker to provide a more detailed and clear summary of meeting discussion. The intent is not for the summary to include verbatim transcript of discussion; only bullet-points of discussion. Theresa suggested hiring a student from a local university to take notes.

Review of 2-page Summary of Threshold Values

Bill Wuerthele said that the summary was well written but wanted to clarify a few items prior to its release. The statement "20% reduction....is consistent with current EPA regulatory practice" needs to be confirmed with EPA. Bill did not think that was common practice in the development of water quality criteria. Historically, the EPA has used the 5% value for the acute value. Bill said he would confirm this with EPA headquarters. He also

did not think that the reference to “20% reductionis the limit of detection for assessing aquatic communities” was accurate. This needs to be verified.

Joe Skorupa asked that the summary provide more depth with regard to when the EPA uses the EC20. This should perhaps be included in the more detailed October draft document. Bill Wuerthele added that the summary should also the issue of how the ECx is used in the context of risk management vs science. Theresa added that the summary should also include the larger context of ongoing Se criteria revisions.

Theresa asked that the column heading “95% Effects” in Table 1 be revised. Joe suggested breaking the center column into two columns; one would be entitled “best estimate of best case” and the other “best estimate of worst case”. Anne Fairbrother added that providing values with 2 decimal places of accuracy was unnecessary. Joe agreed.

Martin Grosell’s SETAC Presentation

Martin Grosell requested the Panel’s approval of his presentation to be made at the SETAC conference on November 15. The presentation had been circulated to the Panel for review and Jeff asked for comments and approval. Martin request comments specifically on his conclusions slide. He noted that while most of the work had been included in previous reports to and discussed with the panel, there were two sets of data that were new. Martin said he would incorporate Harry Ohlendorf’s comments submitted by email.

Theresa was uncomfortable with Martin’s last bullet and was not able to reproduce one of Martin’s calculations. Martin agreed to remove the bulleted item and send Theresa his calculations for review.

Nathan Darnall asked if the Panel had approved Martin’s report. Leland Myers pointed out that the Panel had not reviewed his final report yet. Bill Wuerthele thought it was ok as long as the information had gone through the proper QA/QC and the presentation would be made available to the public, i.e., on the project website. The Panel approved the presentation. A number of additional comments were made by the Panel via email subsequent to the conference call. All comments were incorporated into the final presentation.

Brine Shrimp Data

Earl Byron provide the Panel with a summary of the status of the brine shrimp data. Brad Marden’s draft report for 2006 data has been reviewed by CH2M HILL and comments provided to Brad. Brad is finalizing his report and including the 2007 data. Earl indicated that the 2007 data has some very high values and “not-so-remarkable” trend numbers. Earl has some concerns regarding the precision and high values possibly due to small sample weights and the subtraction of filter weights. Earl was not prepared to say how the problem was going to be addressed. He will be working with Brad to resolve the issue. Earl said that the 1-day comparison of Bill Adam’s and Brad Marden’s sampling methods resulted in similar results.

Theresa asked about the difference between 2006 and 2007 data. Earl said that Brad had used a new method to get rid of the water in the samples using a paper filter. The new methods and resulting data will need to be addressed in Brad’s report.

Nathan asked whether or not the lab had run a blank filter sample to find out what the selenium concentration of the filter was. Earl was not sure but thought the lab would have done this.

GSL Conceptual Model Version 1.0

Earl provided a demonstration of the Microsoft Excel based model for selenium cycling in the Great Salt Lake (GSL). The following are specific points of discussion during the demonstration:

- The atmospheric deposition value is based upon a study completed at Chesapeake Bay in 1991; it is a literature value. Atmospheric deposition has not been measured at the GSL.
- The sediment remineralization and particle dissolution terms on the INPUTS worksheet are the same thing.
- No spatial difference were found; the model does not include a spatial component.
- The model does not account for changes in lake volume due to increased flow loads. The model assumes a static flow into the GSL and a static volume in the GSL but allows the user to vary the Se load coming into the GSL.
- CH2M HILL will add additional functionality with regard to user inputs to mass balance.
- Bill Moellmer asked that a line be added to the INPUTS sheet to include the diet concentration limit next to the egg concentration limit.
- Theresa asked that additional description of the range of input values be provided, specifically for volatilization.
- Gary Santolo described the bird model components. He had a fair amount of data to work with for shorebirds and gulls but less data to work with for grebes and goldeneyes. He developed a fat index and liver index to represent body condition in these species.
- Bill M. asked that all formulas in the model be protected. Bill also asked that variances/uncertainties be noted in the model.
- Joe Skorupa pointed out that two cells in the INPUT-OUTPUT worksheet were mislabeled.
- Gary pointed out that assumptions and uncertainties for the model are discussed in the report.

Jeff asked the Panel to send questions, comments and wishlist for draft report and model to him. Jeff said a new revision of the model (versions 1.1) would be sent to the Panel in 1.5 weeks. This will allow the Panel to use the model prior to its Salt Lake City meeting. The Panel asked that any changes be noted along with the model.

Jeff will send the Panel an errata sheet for the draft report including the missing data from Figures 6-1 and 6-2. Theresa asked that seston be added to figure 6-3.

The next meeting of the Science Panel will be on November 28 in Salt Lake City, Utah.

Project Schedule

Please schedule 11:00 am (Mountain) on November 8 for next Panel conference call.

October 19, 2007

Draft reports expected from sedimentation study

November 1, 2007	CH2M HILL submits draft model and report
November 8, 2007	Panel conference call
November 19, 2007	Draft report expected from volatilization study
November 28-30, 2007	Panel meeting in Salt Lake City, joint meeting on 11/30
December 18, 2007	Panel conference call – NOTE NEW CALL – WILL THIS WORK?
January 11, 2008	CH2M HILL submits final model and report
February 8, 2008	Individual Panel members submit recommendations for standard
February 20-22, 2008	Panel meeting in Salt Lake City, joint meeting on 2/22, Make Recommendation to Steering Committee
February 27, 2008	Steering Committee/Stakeholders meeting
February 28, 2008	Steering Committee meeting Make Recommendation to Water Quality Board